Enclosure A

STATE OF INDIANA

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

AMENDED AUTHORIZATION TO DISCHARGE UNDER THE

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Water Pollution Control Act, as amended, (33 U.S.C. 1251 et seq., the "Act"), and IDEM's permitting authority under IC 13-15,

BP PRODUCTS NOTH AMERICA, INC.
WHITING REFINERY

is authorized to discharge from a petroleum refinery located at 2815 Indianapolis Blvd., Whiting Indiana to receiving waters named Lake Michigan in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II and III hereof.

The permit, as issued on June 21, 2007 is hereby amended, to include the requirements of a Streamlined Mercury Variance in accordance with 327 IAC 5-3.5. The amended provisions shall become effective upon issuance of this permit modification. All terms and conditions of the permit not modified at this time remain in effect. Further, any existing condition or term affected by the amendments will remain in effect until the amended provisions become effective. This permit may be revoked for the nonpayment of applicable fees in accordance with IC 13-18-20.

This permit and the authorization to discharge, as amended, shall expire at midnight July 31, 2012. In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit such information and forms as are required by the Indiana Department of Environmental Management no later than 180 days prior to the date of expiration.

Signed on February 17, 2012 for the Indiana Department of Environmental Management.

Paul Higginbotham, Chief
Permits Branch
Office of Water Quality

TREATMENT FACILITY CLASSIFICATION

The discharger has a Class D industrial wastewater treatment plant, classified in accordance with 327 IAC 5-22, Classification of Wastewater Treatment Plants.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date of this permit and lasting until the Alternate Mixing Zone is operational or the expiration date, whichever occurs first, the permittee is authorized to discharge from Outfall 001 (At the shoreline of Lake Michigan). The discharge is limited to treated process wastewater from the refinery and from Ineos and NiSource - Whiting Clean Energy, recovered ground water, and most of the storm water from the site. Samples taken in compliance with the monitoring requirements below shall be taken at a point representative of the discharge but prior to entry into Lake Michigan. Such discharge shall be limited and monitored by the permittee as specified below:

DISCHARGE LIMITATIONS OUTFALL 001 [1][3]

	Quantity or Loading			Quality or Concentration			Monitoring	Requirements
	Monthly	Daily		Monthly	Daily		Measurement	Sample
Parameter	Average	Maximum	Units	Average	Maximum	Units	Frequency	Type
Flow	Report	Report	MGD	----	----	----	Daily	24-Hr. Total
BOD_5	4,161	8,164	lbs/day	Report	Report	mg/l	1 x Weekly	24 Hr. Comp.
TSS	3,646	5,694	lbs/day	Report	Report	mg/l	2 x Weekly	24 Hr. Comp.
COD	30,323	58,427	lbs/day	Report	Report	mg/l	1 x Weekly	24 Hr. Comp.
Oil and Grease	1,368	2,600	lbs/day	Report	Report	mg/l	1 x Weekly	Grab
Ammonia as N [7]								
Interim	1,030	2,060	lbs/day	Report	Report	mg/l	5 x Weekly	24 Hr. Comp.
Final	88	196	lbs/day	0.49	1.1	mg/l	5 x Weekly	24 Hr. Comp.
Benzo(a)pyrene [7]								
Interim [10]	Report	Report	lbs/day	Report	Report	ng/l	1 x Monthly	24 Hr. Comp.
Final	0.017	0.041	lbs/day	96	230	ng/l	1 x Weekly	24 Hr. Comp.
Chloride [7]								
Interim [10]	Report	Report	lbs/day	Report	Report	mg/l	1 x Monthly	24 Hr. Comp.
Final	33,575	67,508	lbs/day	188	378	mg/l	1 x Weekly	24 Hr. Comp.

DISCHARGE LIMITATIONS OUTFALL 001

Parameter	Quantity or Loading Monthly Average	Daily Maximum	Units	Quality or Concentration Monthly Average	Daily Maximum	Units	Monitoring Measurement Frequency	Requirements Sample Type
Total Chromium[4] [7]								
Interim	23.9	68.53	lbs/day	Report	Report	mg/l	1 x Weekly	24 Hr. Comp.
Final	18	37	lbs/day	0.1	0.2	mg/l	1 x Weekly	24 Hr. Comp.
Hex. Chromium[5] [7]								
Interim	2.01	4.48	lbs/day	Report	Report	mg/l	1 x Weekly	Grab
Final	1.6	3.2	lbs/day	0.009	0.018	mg/l	1 x Weekly	Grab
Total Copper [7]								
Interim [10]	Report	Report	lbs/day	Report	Report	mg/l	1 x Monthly	24 Hr. Comp.
Final	1.8	3.6	lbs/day	0.01	0.02	mg/l	1 x Weekly	24 Hr. Comp.
Total Dissolved Solids [7]								
Interim [10]	Report	Report	lbs/day	Report	Report	mg/l	1 x Monthly	24 Hr. Comp.
Final	109,655	220,025	lbs/day	614	1,232	mg/l	1 x Weekly	24 Hr. Comp.
Fluoride [7]								
Interim [10]	Report	Report	lbs/day	Report	Report	mg/l	1 x Monthly	24 Hr. Comp.
Final	146	286	lbs/day	0.82	1.6	mg/l	1 x Weekly	24 Hr. Comp.
Total Lead [7]								
terim [10]	Report	Report	lbs/day	Report	Report	mg/l	1 x Monthly	24 Hr. Comp.
ıal	1.4	2.9	lbs/day	0.0081	0.016	mg/l	1 x Weekly	24 Hr. Comp.
Mercury [6][8]								
Final Effluent Limits								
	0.00023	**0.00057**	**lbs/day**	**1.3**	**3.2**	**ng/l**	**6 x Yearly**	**Grab**
Interim Effluent Limits								
	----	**Report**	**lbs/day**	----	**Report**	**ng/l**	**6 x Yearly**	**Grab**
Phenolics (4AAP)	20.33	73.01	lbs/day	Report	Report	mg/l	1 x Weekly	24 Hr. Comp.
Phosphorus	Report	Report	lbs/day	Report	1.0	mg/l	1 x Weekly	24 Hr. Comp.
Total Selenium [7]								
Interim [10]	Report	Report	lbs/day	Report	Report	mg/l	1 x Monthly	24 Hr. Comp.
Final	0.73	1.5	lbs/day	0.0041	0.0082	mg/l	1 x Weekly	24 Hr. Comp.
Total Strontium [7]								
Interim [10]	Report	Report	lbs/day	Report	Report	mg/l	1 x Monthly	24 Hr. Comp.
Final	125	250	lbs/day	0.7	1.4	mg/l	1 x Weekly	24 Hr. Comp.
Sulfate								
Interim [10]	Report	Report	lbs/day	Report	Report	mg/l	1 x Monthly	24 Hr. Comp.
Final	36,611	73,401	lbs/day	205	411	mg/l	1 x Weekly	24 Hr. Comp.
Sulfide	23.1	51.4	lbs/day	Report	Report	mg/l	1 x Weekly	24 Hr. Comp.
Total Vanadium [7]								
Interim [10]	Report	Report	lbs/day	Report	Report	mg/l	1 x Monthly	24-Hr. Comp.
Final	1.8	3.6	lbs/day	0.0098	0.02	mg/l	1 x Weekly	24 Hr. Comp.
pH [2]					Report	s.u.	3 x Weekly	Grab

DISCHARGE LIMITATIONS OUTFALL 001

Parameter	Quantity or Loading Monthly Average	Daily Maximum	Units	Quality or Concentration Monthly Average	Daily Maximum	Units	Monitoring Measurement Frequency	Requirements Sample Type
Whole Effluent Toxicity [7][9]								
Interim								
Acute	-	-	-	-	Report	TUa	2 x Yearly	
Chronic	-	-	-	Report	-	TUc	2 x Yearly	
Final								
Acute	-	-	-	-	1.0	TUa	2 x Yearly	
Chronic	-	-	-	1.0	-	TUc	2 x Yearly	

[1] In the event that changes are to be made in the use of water treatment additives including dosage rates contributing to Outfall 001, the permittee shall notify the Indiana Department of Environmental Management as required in Part II.C.1 of this permit. The use of any new or changed water treatment additives or dosage rates shall not cause the discharge from any permitted outfall to exhibit chronic or acute toxicity. Acute and chronic aquatic toxicity information must be provided with any notification regarding any new or changed water treatment additives or dosage rates.

[2] The pH of the effluent shall be no less than 6.0 and no greater than 9.0 standard units (s.u.).

[3] See Part I.B. of the permit for the Narrative Water Quality Standards.

[4] Chromium is to be analyzed by test method which will measure the total quantity.

[5] Hexavalent Chromium shall be measured and reported as dissolved metal. The Hexavalent Chromium sample type shall be grab method. The maximum holding time for a Hexavalent Chromium sample is 24 hours (40 CFR 136.6 Table IB). Therefore, the grab sample must be analyzed within 24 hours. If test results from the analysis performed for total chromium reveal that the concentration is less than the limitations for hexavalent chromium, then the test for hexavalent chromium may be eliminated for that day and reported as the same concentration as total chromium for that day.

[6] Mercury monitoring shall be conducted bi-monthly in the months of February, April, June, August, October, and December using EPA Test Method 1631, Revision E. If EPA Test Method 1631, Revision E is further revised during the term of this permit, the permittee and/or its contract laboratory is required to utilize the most current version of the method as soon as possible after approval by EPA but no later than the second monitoring event after the revision.

The following EPA test methods and/or Standard Methods and associated LODs and LOQs are to be used in the analysis of the effluent samples. Alternative methods may be used if first approved by IDEM.

Parameter	EPA Method	LOD	LOQ
Mercury	1631, Revision E	0.2 ng/l	0.5 ng/l

[7] The permittee is being given a three year schedule of compliance to either install the diffuser to create an alternate mixing zone with effluent limits based on the alternate mixing zone in Part I.A.2 or to install the treatment system necessary to achieve compliance with the final effluent limitations for Outfall 001 in Part I.A.1 based on water quality standards calculated without a mixing zone. The schedule of compliance is found in Part I.E.1 of the permit.

[8] The permittee is being given a five year schedule of compliance to achieve compliance with the final effluent limitations for Mercury at Outfall 001 regardless of whether a diffuser is installed to create an alternate mixing zone. The schedule of compliance is found in Part I.E.2 of the permit.

[9] The permittee shall conduct Whole Effluent Toxicity tests in accordance with Part I.G. of this permit.

[10] The permittee shall begin reporting the parameters listed above as soon as possible but not later than three months after the effective date of this permit.

2. During the period beginning on the date that the diffuser and alternate mixing zone is operational and lasting until the expiration date, the permittee is authorized to discharge from Outfall 005 (The discharge from the diffuser located in Lake Michigan). BP North America shall notify IDEM when the Alternate Mixing Zone (Outfall 005) is operational. The discharge is limited to treated process wastewater from the refinery and from Ineos and NiSource Whiting Clean Energy, recovered ground water and most of the storm water from the site. Samples taken in compliance with the monitoring requirements below shall be taken at a point representative of the discharge but prior to entry into Lake Michigan. Such discharge shall be limited and monitored by the permittee as specified below:

DISCHARGE LIMITATIONS OUTFALL 005 [1][3]

	Quantity or Loading			Quality or Concentration			Monitoring	Requirements
	Monthly	Daily		Monthly	Daily		Measurement	Sample
Parameter	Average	Maximum	Units	Average	Maximum	Units	Frequency	Type
Flow	Report	Report	MGD	----	----	----	Daily	24-Hr. Total
BOD_5	4,161	8,164	lbs/day	Report	Report	mg/l	1 x Weekly	24 Hr. Comp.
TSS	4,925	7,723	lbs/day	Report	Report	mg/l	2 x Weekly	24 Hr. Comp.
COD	30,323	58,427	lbs/day	Report	Report	mg/l	1 x Weekly	24 Hr. Comp.
Oil and Grease	1,368	2,600	lbs/day	Report	Report	mg/l	1 x Weekly	Grab
Phenolics (4AAP)	20.33	73.01	lbs/day	Report	Report	mg/l	1 x Weekly	24 Hr. Comp.
Phosphorus	Report	Report	lbs/day	Report	1.0	mg/l	1 x Weekly	24 Hr. Comp.
Ammonia as N	1,584	3,572	lbs/day	Report	Report	mg/l	5 x Weekly	24 Hr. Comp.
Sulfide	23.1	51.4	lbs/day	Report	Report	mg/l	1 x Weekly	24 Hr. Comp.
Total Chromium [4]	23.9	68.53	lbs/day	Report	Report	mg/l	1 x Weekly	24 Hr. Comp.
Hex. Chromium [5]	2.01	4.48	lbs/day	Report	Report	mg/l	1 x Weekly	Grab
Total Vanadium [7]								
Interim	Report	Report	lbs/day	Report	Report	mg/l	1 x Monthly	24-Hr. Comp.
Final	50	100	lbs/day	0.28	0.56	mg/l	1 x Monthly	24-Hr. Comp.
Total Mercury [6][9]								
Final Effluent Limits	**0.00023**	**0.00057**	**lbs/day**	**1.3**	**3.2**	**ng/l**	**6 x Yearly**	**Grab**
Whole Effluent Toxicity [8]								
Chronic	-	-	-	Report	-	TUc	2 x Yearly	
pH [2]					Report	s.u.	3 x Weekly	Grab

DISCHARGE LIMITATIONS OUTFALL 005

Parameter	Quality or Concentration Annual Average	Daily Maximum	Units	Monitoring Measurement Frequency	Sample Type
Total Mercury [6] [9] Interim Effluent Limits					
	23.1	Report	ng/l	6 x Yearly	Grab

[1] In the event that changes are to be made in the use of water treatment additives including dosage rates contributing to Outfall 005, the permittee shall notify the Indiana Department of Environmental Management as required in Part II.C.1 of this permit. The use of any new or changed water treatment additives or dosage rates shall not cause the discharge from any permitted outfall to exhibit chronic or acute toxicity. Acute and chronic aquatic toxicity information must be provided with any notification regarding any new or changed water treatment additives or dosage rates.

[2] The pH of the effluent shall be no less than 6.0 and no greater than 9.0 standard units (s.u.).

[3] See Part I.B. of the permit for the Narrative Water Quality Standards.

[4] Chromium is to be analyzed by test method which will measure the total quantity.

[5] Hexavalent Chromium shall be measured and reported as dissolved metal. The Hexavalent Chromium sample type shall be grab method. The maximum holding time for a Hexavalent Chromium sample is 24 hours (40 CFR 136.6 Table IB). Therefore, the grab sample must be analyzed within 24 hours. If test results from the analysis performed for total chromium reveal that the concentration is less than the limitations for hexavalent chromium, then the test for hexavalent chromium may be eliminated for that day and reported as the same concentration as total chromium for that day.

[6] Mercury monitoring shall be conducted bi-monthly in the months of February, April, June, August, October, and December using EPA Test Method 1631, Revision E. If EPA Test Method 1631, Revision E is further revised during the term of this permit, the permittee and/or its contract laboratory is required to utilize the most current version of the method as soon as possible after approval by EPA but no later than the second monitoring event after the revision. The following EPA test methods and/or Standard Methods and associated LODs and LOQs are to be used in the analysis of the effluent samples. Alternative methods may be used if first approved by IDEM.

Parameter	EPA Method	LOD	LOQ
Mercury	1631, Revision E	0.2 ng/l	0.5 ng/l

[7] The permittee is being given a five year schedule of compliance to achieve compliance with the final effluent limitations for Vanadium at Outfall 001. The schedule of compliance is found in Part I.E.2 of the permit.

[8] The permittee shall conduct Whole Effluent Toxicity tests in accordance with Part I.G. of this permit.

[9] For the term of this permit, the permittee is subject to the variance discharge limit developed in accordance with 327 IAC 5-3.5-8. The permittee applied for, and received, a variance from the water quality criterion used to establish the referenced mercury WQBEL under 327 IAC 5-3.5. Compliance with the interim discharge limit will demonstrate compliance with mercury discharge limitations of this permit for Outfall 005. **The permittee shall report both a daily maximum value and an annual average for Mercury.** The annual average value shall be calculated as the average of daily maximum values from the most recent twelve-month period. Compliance with the variance discharge limit for Mercury will be achieved when the annual average value is less than the interim discharge limit. Mercury monitoring shall be conducted bi-monthly in the months of February, April, June, August, October, and December of each year for the term of the permit using EPA Test Method 1631, Revision E. The initial annual average value shall be reported on the monthly report for March, 2012. If EPA Test Method 1631, Revision E is further revised during the term of this permit, the permittee and/or its contract laboratory is required to utilize the most current version of the method as soon as possible after approval by EPA but no later than the second monitoring event after the revision. The calculating and reporting of the annual average value for mercury is only required for the months when samples are taken for mercury. See Part IV of the permit for the Mercury Pollution Prevention Management Plan Requirements.

3. During the period beginning on the effective date of this permit and lasting until the expiration date, the permittee is authorized to discharge from Outfall 002. The discharge is limited to non-contact cooling water. Samples taken in compliance with the monitoring requirements below shall be taken at a point representative of the discharge but prior to entry into Lake Michigan. Such discharge shall be limited and monitored by the permittee as specified below:

DISCHARGE LIMITATIONS OUTFALL 002 [1][3]

	Quantity or Loading			Quality or Concentration			Monitoring Requirements	
	Monthly	Daily		Monthly	Daily		Measurement	Sample
Parameter	Average	Maximum	Units	Average	Maximum	Units	Frequency	Type
Flow	Report	Report	MGD	----	----	----	Daily	24-Hr. Total
TOC (Intake)	-	-	-	Report	Report	mg/l	1 x Yearly	Grab
TOC (Discharge)	-	-	-	Report	Report	mg/l	1 x Yearly	Grab
TOC (Net)	-	-	-	Report	5.0 [5]	mg/l	1 x Yearly	Grab
Total Residual Chlorine [6][7]	20.0	60.0	lbs/day	0.01	0.02	mg/l	1 x Weekly	Grab
Oil & Grease	-	-	-	Report	5.0	mg/l	1 x Monthly	Grab
Temperature [4]								
Intake	-	-	-	Report	Report	F°/Hour	5 x Weekly	Hourly
Discharge	-	-	-	Report	Report	F°/Hour	5 x Weekly	Hourly
Net (daily ave.)	-	-	-	1.7×10^9	2.0×10^9	BTU/Hour	5 x Weekly	Hourly
	-	-	-	-	[2]	s.u.	3 x Weekly	Grab

[1] In the event that changes are to be made in the use of water treatment additives including dosage rates contributing to Outfall 002, the permittee shall notify the Indiana Department of Environmental Management as required in Part II.C.1 of this permit. The use of any new or changed water treatment additives or dosage rates shall not cause the discharge from any permitted outfall to exhibit chronic or acute toxicity. Acute and chronic aquatic toxicity information must be provided with any notification regarding any new or changed water treatment additives or dosage rates.

[2] The pH of the effluent shall be no less than 6.0 and no greater than 9.0 standard units (s.u.).

[3] See Part I.B. of the permit for the Narrative Water Quality Standards.

[4] The net temperature shall be calculated by subtracting the temperature value of the intake water from the temperature value of the gross discharge every hour converting to BTU/hr by multiplying the temperature difference by the discharge flow and the appropriate conversion factor and averaging those values over the 24 hours of each day when sampling occurs.

[5] Total Organic Carbon (TOC) shall be limited on a net basis. The net result shall be calculated by subtracting the concentration value of the intake water from the concentration value of the discharge from Outfall 002.

[6] The monthly average water quality based effluent limit (WQBEL) for total residual chlorine is less than the limit of quantitation (LOQ) as defined below. Compliance with the monthly average limit will be demonstrated if the monthly average effluent level is

less than or equal to the monthly average WQBEL. Daily effluent values that are less than the LOQ, used to determine the monthly average effluent levels less than the LOQ, may be assigned a value of zero (0), unless, after considering the number of monitoring results that are greater than the limit of detection (LOD), and applying appropriate statistical techniques, a value other than zero (0) is warranted.

[7] The daily maximum WQBEL for total residual chlorine is equal to the LOD but less than the LOQ specified in the permit. Compliance with the daily maximum limit will be demonstrated if the observed effluent concentrations are less than the LOQ.

Compliance with the daily maximum mass value will be demonstrated if the calculated mass value is less than 60.0 lbs/day.

Parameter	Test Method	LOD	LOQ
Chlorine	4500-Cl-D,E or 4500-Cl-G	0.02 mg/l	0.06 mg/l

Case-Specific LOD/LOQ

The permittee may determine a case-specific LOD or LOQ using the analytical method specified above, or any other test method which is approved by the Commissioner prior to use. The LOD shall be derived by the procedure specified for method detection limits contained in 40 CFR Part 136, Appendix B, and the LOQ shall be set equal to 3.18 times the LOD. Other methods may be used if first approved by the Commissioner.

4. During the period beginning on the effective date of this permit and lasting until the expiration date, the permittee is authorized to discharge from Outfalls 003 and 004. The discharge is limited to non-process storm water. Samples taken in compliance with the monitoring requirements below shall be taken at a point representative of the discharge but prior to entry into the Lake George Branch of the Indiana Harbor Ship Canal. Such discharge shall be limited and monitored by the permittee as specified below:

DISCHARGE LIMITATIONS OUTFALLS 003 and 004 [2][4]

	Quantity or Loading			Quality or Concentration			Monitoring Requirements		
	Monthly	Daily			Monthly	Daily		Measurement	Sample
Parameter	Average	Maximum	Units		Average	Maximum	Units	Frequency	Type
Flow	Report	Report	MGD		----	----	Daily		24-Hr. Total
TOC	-	-	-		Report	110	mg/l	1 x Weekly[3]	Grab
Oil & Grease	-	-	-		Report	15	mg/l	1 x Weekly[3]	Grab
pH	-	-	-		----	[1]	s.u.	1 x Weekly[3]	Grab

[1] The pH of the effluent shall be no less than 6.0 and no greater than 9.0 standard units (s.u.).

[2] See Part I.B. of the permit for the Narrative Water Quality Standards.

[3] The permittee shall sample TOC, Oil & Grease, and pH during the first discharge of each week. If there is no discharge during any particular week, then the permittee shall report No Discharge for that week on the monthly DMR.

[4] The permittee is required to develop and implement a Storm Water Pollution Prevention Plan (SWP3) as described in Part I. D of the permit. The permittee shall conduct a visual inspection at the outfall(s) on an annual basis. During visual inspections the permittee shall report the presence of turbidity, color, foam, solids, floatables, and oil sheen. The results of the visual inspections shall be recorded and maintained as part of the SWP3 plan. Visual inspections should allow for timely adjustments to be made to the SWP3. If BMPs are performing ineffectively, corrective action must be implemented. A set of tracking or follow-up procedures must be used to ensure that appropriate actions are taken in response to the examinations.

B. NARRATIVE WATER QUALITY STANDARDS

1. In accordance with 327 IAC 2-1.5-8, all waters at all times and at all places, including the mixing zone, shall meet the minimum conditions of being free from substances, materials, floating debris, oil, or scum attributable to the discharge:

   a. That will settle to form putrescent or otherwise objectionable deposits;

   b. That are in amounts sufficient to be unsightly or deleterious;

   c. That produce color, visible oil sheen, odor, or other conditions in such degree as to create a nuisance;

   d. Which are in amounts sufficient to be acutely toxic to , or to otherwise severely injure or kill aquatic life, other animals, plants, or humans

   e. Which are in concentrations or combinations that will cause or contribute to the growth of aquatic plants or algae to such a degree as to create a nuisance, be unsightly, or otherwise impair the designated uses.

2. At all times, all waters outside the mixing zone shall be free of substances in concentrations which on the basis of available scientific data are believed to be sufficient to injure, be chronically toxic to, or be carcinogenic, mutagenic, or teratogenic to humans, animals, aquatic life, or plants.

C. MONITORING AND REPORTING

1. Representative Sampling

   Samples and measurements taken as required herein shall be representative of the volume and nature of the discharge.

2. Discharge Monitoring Reports

   a. For parameters with monthly average water quality based effluent limitations (WQBELs) below the LOQ, daily effluent values that are less than the limit of quantitation (LOQ) may be assigned a value of zero (0).

   b. For all other parameters for which the monthly average WQBEL is equal to or greater than the LOQ, calculations that require averaging of measurements of daily values (both concentration and mass) shall use an arithmetic mean. When a daily discharge value is below the LOQ, a value of zero (0) shall be used for that value in the calculation to determine the monthly average unless otherwise specified or approved by the Commissioner.

   c. Effluent concentrations less than the LOD shall be reported on the Discharge Monitoring Report (DMR) forms as < (less than) the value of the LOD. For example, if a substance is not detected at a concentration of 0.1 µg/l, report the value as <0.1 µg/l.

d. Effluent concentrations greater than or equal to the LOD and less than the LOQ that are reported on a DMR shall be reported as the actual value and annotated on the DMR to indicate that the value is not quantifiable.

e. Mass discharge values which are calculated from concentrations reported as less than the value of the limit of detection shall be reported as less than the corresponding mass discharge value.

f. Mass discharge values that are calculated from effluent concentrations greater than the limit of detection shall be reported as the calculated value.

The permittee shall submit federal and state discharge monitoring reports to the Indiana Department of Environmental Management containing results obtained during the previous month which shall be postmarked no later than the 28th day of the month following each completed monitoring period. The first report shall be submitted by the 28th day of the month following the month in which the permit becomes effective.

The Regional Administrator may request the permittee to submit monitoring reports to the Environmental Protection Agency if it is deemed necessary to assure compliance with the permit.

3. Definitions

a. Monthly Average

(1) Mass Basis - The "monthly average" discharge means the total mass discharge during a calendar month divided by the number of days in the month that the production or commercial facility was discharging. Where less than daily samples is required by this permit, the monthly average discharge shall be determined by the summation of the measured daily mass discharges divided by the number of days during the calendar month when the measurements were made.

(2) Concentration Basis - The "monthly average" concentration means the arithmetic average of all daily determinations of concentration made during a calendar month. When grab samples are used, the daily determination of concentration shall be the arithmetic average (weighted by flow value) of all the samples collected during the calendar day.

b. "Daily Discharge"

(1) Mass Basis – The "daily discharge" means the total mass discharge by weight during any calendar day.

(2) Concentration Basis – The "daily discharge" means the average concentration over the calendar day or any twenty-four (24) hour

period that reasonably represents the calendar day for the purposes of sampling.

c. "Daily Maximum"

(1) Mass Basis – The "daily maximum" means the maximum daily discharge mass value for any calendar day.

(2) Concentration Basis – The "daily maximum" means the maximum daily discharge value for any calendar day.

(3) Temperature Basis – The "daily maximum" means the highest temperature value measured for any calendar day.

d. A 24-hour composite sample consists of at least twenty four (24) individual aliquots of wastewater by the grab sample method or by an automatic sampler, which are taken at approximately equally spaced time intervals for the duration of the discharge within a 24-hour period and which are combined prior to analysis

e. Concentration -The weight of any given material present in a unit volume of liquid. Unless otherwise indicated in this permit, concentration values shall be expressed in milligrams per liter (mg/l).

f. The "Regional Administrator" is defined as the Region V Administrator, U.S. EPA, located at 77 West Jackson Boulevard, Chicago, Illinois 60604.

g. The "Commissioner" is defined as the Commissioner of the Indiana Department of Environmental Management, which is located at the following address: 100 North Senate Avenue, Indianapolis, Indiana 46204.

h. "Limit of Detection or LOD" means a measurement of the concentration of a substance that can be measured and reported with ninety-nine percent (99%) confidence that the analyte concentration is greater than zero (0) for a particular analytical method and sample matrix. The LOD is equivalent to the method detection level or MDL.

i. "Limit of Quantitation or LOQ" means a measurement of the concentration of a contaminant obtained by using a specified laboratory procedure calibrated at a specified concentration above the method detection level. It is considered the lowest concentration at which a particular contaminant can be quantitatively measured using a specified laboratory procedure for monitoring of the contaminant. This term is also sometimes called limit quantification or quantification level.

j. "Method Detection Level or MDL" means the minimum concentration of an analyte (substance) that can be measured and reported with a ninety-nine percent (99%) confidence that the analyte concentration is greater than zero (0) as determined by procedure set forth in 40 CFR 136,

Appendix B. The method detection level or MDL is equivalent to the LOD.

k. "Toxic Unit–Acute (TU_a)" is defined as $100/LC_{50}$ where the LC_{50} is expressed as a percent effluent in the test medium of an acute whole effluent toxicity (WET) test that is statistically or graphically estimated to be lethal to fifty percent (50%) of the test organisms.

l. "Inhibition concentration 25" or "IC_{25}" means the toxicant concentration that would cause a twenty-five percent (25%) reduction in a nonquantal biological measurement for the test population. For example, the IC_{25} is the concentration of toxicant that would cause a twenty-five percent (25%) reduction in mean young per female or in growth for the test population.

m. "Toxic Unit–Chronic (TU_c)" is defined as 100/NOEC or $100/LC_{25}$.

n. "No Observed Effect Concentration (NOEC)" is the highest tested concentration of an effluent or test sample whose effect is not different from the control effect, according to the statistical test used. The NOEC is usually the highest tested concentration of an effluent or toxic that causes no observable adverse effect on the test organisms (i.e., the highest concentration of toxicity at which the values for the observed responses do not statistically differ from the controls).

4. Test Procedure

The analytical and sampling methods used shall conform to the current version of 40 CFR 136. Multiple editions of Standard Methods for the Examination of Water and Wastewater are currently approved for most methods, however, 40 CFR Part 136 should be checked to ascertain if a particular method is approved for a particular analyte. The approved methods may be included in the texts listed below. However, different but equivalent methods are allowable if they receive the prior written approval of the Commissioner and the U.S. Environmental Protection Agency.

a. Standard Methods for the Examination of Water and Wastewater
18^{th}, 19^{th}, or 20^{th} Editions, 1992, 1995, or 1998, American Public Health Association, Washington, D.C. 20005.

b. A.S.T.M. Standards, Parts 23, Water; Atmosphere Analysis
1972 American Society for Testing and Materials, Philadelphia, PA 19103.

c. Methods for Chemical Analysis of Water and Wastes
June 1974, Revised, March 1983, Environmental Protection Agency, Water Quality Office, Analytical Quality Control Laboratory, 1014 Broadway, Cincinnati, OH 45202.

5. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

a. The exact place, date, and time of sampling;

b. The person(s) who performed the sampling or measurements;

c. The dates the analyses were performed;

d The person(s) who performed the analyses;

e. The analytical techniques or methods used; and

f. The results of all required analyses and measurements.

6. Additional Monitoring by Permittee

If the permittee monitors any pollutant listed in Part I.A at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of this monitoring shall be included in the calculation and reporting of the values required in the monthly Discharge Monitoring Report (DMR). Such increased frequency shall also be indicated. Other monitoring data not specifically required in this permit (such as internal process or internal waste stream data) which is collected by or for the permittee need not be submitted unless requested by the Commissioner.

7. Records Retention

All records and information resulting from the monitoring activities required by this permit, including all records of analyses performed and calibration and maintenance of instrumentation and recording from continuous monitoring instrumentation, shall be retained for a minimum of three (3) years. In cases where the original records are kept at another location, a copy of all such records shall be kept at the permitted facility. The three years shall be extended:

a. automatically during the course of any unresolved litigation regarding the discharge of pollutants by the permittee or regarding promulgated effluent guidelines applicable to the permittee; or

b. as requested by the Regional Administrator or the Indiana Department of Environmental Management.

D. STORM WATER POLLUTION PREVENTION PLAN

1. Development of Plan

Within 18 months from the effective date of this permit, the permittee is required to develop and implement a Storm Water Pollution Prevention Plan (SWP3) for the permitted facility. The plan shall at a minimum include the following:

a. Identify potential sources of pollution, which may reasonably be expected to affect the quality of storm water discharges associated with industrial activity from the facility. Storm water associated with industrial activity (defined in 40 CFR 122.26(b)) includes, but is not limited to, the discharge from any conveyance which is used for collecting and conveying storm water and which is directly related to manufacturing, processing or materials storage areas at an industrial plant;

b. Describe practices and measure to be used in reducing the potential for pollutants to be exposed to storm water; and

c. Assure compliance with the terms and conditions of this permit.

Notwithstanding any other provision of this permit, the SWP3 is not required to address storm water discharges that are routed to treatment and then discharged through Outfall 001 or Outfall 005.

2. Contents

The plan shall include, at a minimum, the following items:

a. Pollution Prevention Team -The plan shall list, by position title, the member or members of the facility organization as members of a storm water Pollution Prevention Team who are responsible for developing the storm water pollution prevention plan (SWP3) and assisting the facility or plant manager in its implementation, maintenance, and revision. The plan shall clearly identify the responsibilities of each storm water pollution prevention team member.

b. Description of Potential Pollutant Sources – The plan shall provide a description of areas at the site exposed to industrial activity and have a reasonable potential for storm water to be exposed to pollutants. The plan shall identify all activities and significant materials (defined in 40 CFR 122.26(b)), which may potentially be significant pollutant sources. As a minimum, the plan shall contain the following:

(1) A soils map indicating the types of soils found on the facility property and showing the boundaries of the facility property.

(2) A graphical representation, such as an aerial photograph or site layout maps, drawn to an appropriate scale, which contains a legend and compass coordinates, indicating, at a minimum, the following:

(A) All on-site storm water drainage and discharge conveyances, which may include pipes, ditches, swales, and erosion channels, related to a storm water discharge.

(B) Known adjacent property drainage and discharge conveyances, if directly associated with run-off from the facility.

(C) All on-site and known adjacent property water bodies, including wetlands and springs.

(D) An outline of the drainage area for each outfall.

(E) An outline of the facility property, indicating directional flows, via arrows, of surface drainage patterns.

(F) An outline of impervious surfaces, which includes pavement and buildings, and an estimate of the impervious and pervious surface square footage for each drainage area placed in a map legend.

(G) On-site injection wells, as applicable.

(H) On-site wells used as potable water sources, as applicable.

(I) All existing major structural control measures to reduce pollutants in storm water run-off.

(J) All existing and historical underground or aboveground storage tank locations, as applicable.

(K) All permanently designated plowed or dumped snow storage locations.

(L) All loading and unloading areas for solid and liquid bulk materials.

(M) All existing and historical outdoor storage areas for raw materials, intermediary products, final products, and waste materials.

(N) All existing or historical outdoor storage areas for fuels, processing equipment, and other containerized materials, for example, in drums and totes.

(O) Outdoor processing areas.

(P) Dust or particulate generating process areas.

(Q) Outdoor assigned waste storage or disposal areas.

(R) Pesticide or herbicide application areas.

(S) Vehicular access roads.

The mapping of historical locations is only required if the historical locations have a reasonable potential for storm water exposure to historical pollutants.

(3) An area site map that indicates:

(A) The topographic relief or similar elevations to determine surface drainage patterns;

(B) The facility boundaries;

(C) All receiving waters; and

(D) All known drinking water wells; and

Includes at a minimum, the features in clauses (A), (C), and (D) within a one-fourth (1/4) mile radius beyond the property boundaries of the facility. This map must be to scale and include a legend and compass coordinates.

(4) A narrative description of areas that generate storm water discharges exposed to industrial activity including descriptions for any existing or historical areas listed in subdivision 2.b.(2)(J) through (S) of this Part, and any other areas thought to generate storm water discharges exposed to industrial activity. The narrative descriptions for each identified area must include the following:

(A) Type and typical quantity of materials present in the area.

(B) Methods of storage, including presence of any secondary containment measures.

(C) Any remedial actions undertaken in the area to eliminate pollutant sources or exposure of storm water to those sources. If a corrective action plan was developed, the type of remedial action and plan date shall be referenced.

(D) Any significant release or spill history dating back a period of three (3) years from the effective date of this permit, in the identified area, for materials spilled outside of secondary containment structures and impervious surfaces in excess of their CERCLA reportable quantity, including the following:

i. The date and type of material released or spilled.

ii. The estimated volume released or spilled.

iii. A description of the remedial actions undertaken, including disposal or treatment.

Depending on the adequacy or completeness of the remedial actions, the spill history shall be used to determine additional pollutant sources that may be exposed to storm water. In subsequent permit terms, the history shall date back for a period of five (5) years from the date of the permit renewal application.

(E) Where the chemicals or materials have the potential to be exposed to storm water discharges, the descriptions for each identified area must include a risk identification analysis of chemicals or materials stored or used within the area. The analysis must include the following:

i. Toxicity data of chemicals or materials used within the area, referencing appropriate material safety data sheet information locations.

ii. The frequency and typical quantity of listed chemicals or materials to be stored within the area.

iii. Potential ways in which storm water discharges may be exposed to listed chemicals and materials.

iv. The likelihood of the listed chemicals and materials to come into contact with water.

(5) A narrative description of existing and planned management practices and measures to improve the quality of storm water run-off entering a water of the state. Descriptions must be created for existing or historical areas listed in subdivision 2.b.(2)(J) through (S) and any other areas thought to generate storm water discharges exposed to industrial activity. The description must include the following:

(A) Any existing or planned structural and nonstructural control practices and measures.

(B) Any treatment the storm water receives prior to leaving the facility property or entering a water of the state.

(C) The ultimate disposal of any solid or fluid wastes collected in structural control measures other than by discharge.

(6) If applicable, the specific control practices and measures for

potential pollutant source areas must include the following:

(A) Identification of areas that, due to topography, activities, or other factors, have a high potential for significant soil erosion and identify and implement measures to limit erosion.

(B) A plan to cover, or otherwise reduce the potential for pollutants in storm water discharge from deicing salt and sand or other commercial or industrial material storage piles, except for exposure resulting from the addition or removal of materials from the pile. For piles that do not have the potential for polluting storm water run-off, the plan needs to provide the basis for determining no exposure potential. The plan must be included in the SWP3.

(C) Storage piles of sand and salt or other commercial or industrial materials must be stored in a manner to reduce the potential for polluted storm water run-off and in accordance with the plan required under clause (B).

(7) Information or other documentation required under subsection (d) of this plan.

(8) The results of storm water monitoring. The monitoring data must include completed field data sheets, chain-of-custody forms, and laboratory results. If the monitoring data are not placed into the facility's SWP3, the on-site location for storage of the information must be reference in the SWP3.

c. Measures and Practices – For areas of the facility that generate storm water discharges and have a potential for storm water exposure to pollutants, storm water exposure to pollutants must be minimized. To ensure this reduction, the following practices and measure must be planned and implemented:

(1) A written preventative maintenance program, including the following:

(A) Implementation of good housekeeping practices to ensure the facility will be operated in a clean and orderly manner and that pollutants will not have the potential to be exposed to storm water via vehicle tracking or other means.

(B) Maintenance of storm water management measures, for example, catch basins or the cleaning of oil and water separators. All maintenance must be documented and either contained in, or have the on-site record keeping location referenced in, the SWP3.

(C) Inspection and testing of facility equipment and systems that are in areas of the facility that generate storm water discharges and have a reasonable potential for storm water exposure to pollutants to ensure appropriate maintenance of such equipment and systems and to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters.

(D) At a minimum, quarterly inspections of the storm water management measures and storm water run-off conveyances. Inspections must be documented and either contained in, or have the on-site record keeping location referenced in, the SWP3.

(E) An employee training program to inform personnel at all levels of responsibility that have the potential to engage in industrial activities that impact storm water quality of the components and goals of the SWP3. Training must occur at a minimum annually and should address topics such as spill response, good housekeeping, and material management practices. All employee training sessions, including relevant storm water topics discussed and a roster of attendees, must be documented and either contained in, or have the on-site record keeping location referenced in, the SWP3.

(2) A written spill response program, including the following:

(A) Location, description, and quantity of all response materials and equipment.

(B) Response procedures for facility personnel to respond to a release.

(C) Contact information for reporting spills, both for facility staff and external emergency response entities.

(3) A written non-storm water assessment, including the following:

(A) A certification letter stating that storm water discharges entering a water of the state have been evaluated for the presence of illicit discharges and non-storm water contributions.

(B) Detergent or solvent-based washing of equipment or vehicles that would allow washwater additives to enter any storm water only drainage system shall not be allowed at this facility unless appropriately permitted

under this NPDES permit.

(C) All interior maintenance area floor drains with the potential for maintenance fluids or other materials to enter storm water only storm sewers must be either sealed, connected to a sanitary sewer with prior authorization, or appropriately permitted under this NPDES permit. The sealing, sanitary sewer connecting, or permitting of drains under this item must be documented in the written non-storm water assessment program.

(D) The certification shall include a description of the method used, the date of any testing, and the on-site drainage points that were directly observed during the test.

(4) Management of Runoff, including the following:

(A) The plan shall contain a narrative consideration of the appropriateness of storm water management practices (practices other than those which control the generation or sources of pollutants) used to divert, infiltrate, reuse, or otherwise manage storm water runoff in a manner that reduces pollutants in storm water discharges from the site.

(B) The plan shall provide for the implementation and maintenance of measures that the permittee determines to be reasonable and appropriate. The potential of various sources at the facility to contribute pollutants to storm water discharges associated with industrial activity shall be considered when determining reasonable and appropriate measures.

(C) Examples of appropriate measures or other equivalent measures may include (but are not limited to): vegetative swales and practices, reuse of collected storm water (such as for a process or as an irrigation source), inlet controls (such as oil/water separators), snow management activities, infiltration devices, and wet detention/retention devices.

d. Comprehensive Site Compliance Evaluation – Qualified personnel shall conduct a comprehensive site compliance evaluation, at least once per year, to confirm the accuracy of the description of potential pollution sources contained in the plan, determine the effectiveness of the plan, and assess compliance with the permit. Such evaluations shall provide:

(1) Areas contributing to a storm water discharge associated with industrial activity shall be visually inspected for evidence of, or

the potential for, pollutants entering the drainage system. Measures to reduce pollutant loadings shall be evaluated to determine whether they are adequate and properly implemented in accordance with the terms of the permit or whether additional control measures are needed. Structural storm water management measure, sediment and erosion control measures, and other structural pollution prevention measures identified in the plan shall be observed to ensure that they are operating correctly. A visual inspection of equipment needed to implement the plan, such as spill response equipment, shall be made.

(2) Based on the results of the evaluation, the description of potential pollutant sources identified in the plan in accordance with Part I.D.2.b of this permit and pollution prevention measures and controls identified in the plan in accordance with Part I.D.2.c. of this permit shall be revised as appropriate within 4 weeks of such evaluation and shall provide for implementation of any changes to the plan in a timely manner, but in no case more than 12 weeks after the evaluation.

(3) A report summarizing the scope of the evaluation, personnel making the evaluation, the date(s) of the evaluation, major observations relating to the implementation of the storm water pollution prevention plan, and actions taken in accordance with the above paragraph must be documented and either contained in, or have on-site record keeping location referenced in, the SWP3 for at least 3 years after the date of the evaluation. The report shall identify any incidents of noncompliance. Where a report does not identify any incidents of noncompliance, the report shall contain a certification that the facility is in compliance with the storm water pollution prevention plan and this permit. The report shall be signed in accordance with the signatory requirements of Part II.C.6 of this permit.

(4) Where compliance evaluation schedules overlap the inspections required under Part I.D.2.c.(1)(D), the compliance evaluation may be conducted in place of one such inspection.

e. General Requirements – The SWP3 must meet the following general requirements:

(1) The plan shall be certified by a qualified professional. The term qualified professional means an individual who is trained and experienced in water treatment techniques and related fields as may be demonstrated by state registration, professional certification, or completion of course work that enable the individual to make sound, professional judgments regarding storm water control/treatment and monitoring, pollutant fate and transport, and drainage planning.

(2) The plan shall be retained at the facility and be available for review by a representative of the Commissioner upon request.

(3) The plan must be completed and implemented on or before eighteen (18) months from the effective date of this permit. The Commissioner may grant an extension of this time frame based on a request by the person showing reasonable cause.

(4) The permittee shall amend the plan by either of the following:

(A) Whenever there is a change in design, construction, operation, or maintenance at the facility, which may have a significant effect on the potential for the discharge of pollutants to surface waters of the state.

(B) Upon written notice by the Commissioner that the SWP3 proves to be ineffective in controlling pollutants in storm water discharges exposed to industrial activity. Within sixty (60) days of such notification from the Commissioner, the permittee shall make the required changes to the SWP3 and shall submit the amended plan to the Commissioner for review.

(5) If the permittee has other written plans, required under applicable federal or state law, such as operation and maintenance, spill prevention control and countermeasures (SPCC), or risk contingency plans, which fulfill certain requirements of an SWP3, these plans may be referenced, at the permittee's discretion, in the appropriate sections of the SWP3 to meet those section requirements.

(6) The permittee may combine the requirements of the SWP3 with another written plan if:

(A) The plan is retained at the facility and available for review;

(B) All the requirements of the SWP3 are contained within the plan; and

(C) A separate, labeled section is utilized in the plan for the SWP3 requirements.

E. SCHEDULE OF COMPLIANCE

1. The permittee shall achieve compliance with the effluent limitations specified for, Ammonia as N, Benzo (a) pyrene, Chloride, Total Chromium, Hex. Chromium, Total Copper, TDS, Fluoride, Total Lead, Total Selenium, Total Strontium, Sulfate, Total Vanadium (Part I.A.1) and Whole Effluent Toxicity at Outfall 001 in accordance with the following schedule using the effective date of August 1, 2007:

   a. The permittee shall submit a written progress report to the Compliance Evaluation Section of the Office of Water Quality (OWQ) nine (9) months from the effective date of this permit. The progress report shall include a description of the method(s) selected for meeting the newly imposed limitation for Ammonia as N, Benzo (a) pyrene, Chloride, Total Chromium, Hex. Chromium, Total Copper, TDS, Fluoride, Total Lead, Total Selenium, Total Strontium, Sulfate, Total Vanadium (Part I.A.1) and Whole Effluent Toxicity, in addition to any other relevant information. The progress report shall also include a specific time line specifying when each of the steps will be taken. The new effluent limits for Ammonia as N, Benzo (a) pyrene, Chloride, Total Chromium, Hex. Chromium, Total Copper, TDS, Fluoride, Total Lead, Total Selenium, Total Strontium, Sulfate, Total Vanadium (Part I.A.1) and Whole Effluent Toxicity are deferred for the term of this compliance schedule, unless the new effluent limits can be met at an earlier date. The permittee shall notify the Compliance Evaluation Section of OWQ as soon as the newly imposed effluent limits for Ammonia as N, Benzo (a) pyrene, Chloride, Total Chromium, Hex. Chromium, Total Copper, TDS, Fluoride, Total Lead, Total Selenium, Total Strontium, Sulfate, Total Vanadium (Part I.A.1) and Whole Effluent Toxicity can be met. Upon receipt of such notification by OWQ, the final limits for Ammonia as N, Benzo (a) pyrene, Chloride, Total Chromium, Hex. Chromium, Total Copper, TDS, Fluoride, Total Lead, Total Selenium, Total Strontium, Sulfate, Total Vanadium (Part I.A.1) and Whole Effluent Toxicity will become effective, but no later than thirty-six (36) months from the effective date of this permit. Monitoring and reporting of the effluent for these parameters is required during the interim period.

   b. The permittee shall submit a subsequent progress report to the Compliance Evaluation Section of OWQ no later than eighteen (18) months from the effective date of this permit. This report shall include detailed information on the steps the permittee has taken to achieve compliance with the final effluent limitations and whether the permittee is meeting the time line set out in the initial progress report.

   c. The permittee shall submit a subsequent progress report to the Compliance Evaluation Section of OWQ no later than twenty-seven (27) months from the effective date of this permit. This report shall include detailed information on the steps the permittee has taken to achieve compliance with the final effluent limitations and whether the permittee is meeting the time line set out in the initial progress report.

d. Within thirty (30) days of completion of construction, the permittee shall file with the Industrial NPDES Permits Section of OWQ a notice of installation for the additional pollutant control equipment and a design summary of any modifications.

e. The permittee shall comply with the final effluent limitations for Ammonia as N, Benzo (a) pyrene, Chloride, Total Chromium, Hex. Chromium, Total Copper, TDS, Fluoride, Total Lead, Total Selenium, Total Strontium, Sulfate, Total Vanadium (Part I.A.1) and Whole Effluent Toxicity at Outfall 001 no later than thirty-six (36) months from the effective date of this permit unless the permittee has an operational alternate mixing zone prior to that date. When the permittee has notified IDEM that the alternate mixing zone is operational, the effluent limits at Outfall 005 for Ammonia as N, Benzo (a) pyrene, Chloride, Total Chromium, Hex. Chromium, Total Copper, TDS, Fluoride, Total Lead, Total Selenium, Total Strontium, Sulfate, Total Vanadium (Part I.A.1) and Whole Effluent Toxicity found in Part I.A.2 will become effective

2. The permittee shall achieve compliance with the effluent limitations specified for Total Vanadium (Part I.A.2) at Outfall 005 in accordance with the following schedule using the effective date of August 1, 2007:

a. The permittee shall submit a written progress report to the Compliance Evaluation Section of the Office of Water Quality (OWQ) twelve (12) months from the effective date of this permit. The progress report shall include a description of the method(s) selected for meeting the newly imposed limitation for Total Vanadium and Total Mercury, in addition to any other relevant information. The progress report shall also include a specific time line specifying when each of the steps will be taken. The new effluent limits for Total Vanadium and Total Mercury are deferred for the term of this compliance schedule, unless the new effluent limits can be met at an earlier date. The permittee shall notify the Compliance Evaluation Section of OWQ as soon as the newly imposed effluent limits for Total Vanadium and Total Mercury can be met. Upon receipt of such notification by OWQ, the final limits for Total Vanadium and Total Mercury will become effective, but no later than sixty (60) months from the effective date of this permit. Monitoring and reporting of the effluent for these parameters is required during the interim period.

b. The permittee shall submit a subsequent progress report to the Compliance Evaluation Section of OWQ no later than twenty-four (24) months from the effective date of this permit. This report shall include detailed information on the steps the permittee has taken to achieve compliance with the final effluent limitations and whether the permittee is meeting the time line set out in the initial progress report.

c. If the permittee decides to conduct the studies necessary to develop a Tier I criterion or to modify the Tier II value for Total Vanadium, those studies shall be submitted to the Compliance Evaluation Section, Office of Water Management (OWM) no later than two years after the effective date of the permit.

d. If the permittee has submitted the studies in accordance with Part c., above, and if the commissioner has not made a final determination to issue or deny a permit revision based on these studies no later than nine (9) months after the submittal or thirty-three (33) months after the effective date of the permit, whichever is earlier, then the request for the revised limit is deemed to be denied. This decision is appealable in accordance with IC 13-4-21.5-3-7 and IC 13-15-6.

e. The permittee shall submit a subsequent progress report to the Compliance Evaluation Section of OWQ no later than thirty-six (36) months from the effective date of this permit. This report shall include detailed information on the steps the permittee has taken to achieve compliance with the final effluent limitations and whether the permittee is meeting the time line set out in the initial progress report.

f. The permittee shall submit a subsequent progress report to the Compliance Evaluation Section of OWQ no later than forty-eight (48) months from the effective date of this permit. This report shall include detailed information on the steps the permittee has taken to achieve compliance with the final effluent limitations and whether the permittee is meeting the time line set out in the initial progress report.

g. Within thirty (30) days of completion of construction, the permittee shall file with the Industrial NPDES Permits Section of OWQ a notice of installation for the additional pollutant control equipment and a design summary of any modifications.

h. The permittee shall comply with the final effluent limitations for Total Vanadium and Total Mercury no later than sixty (60) months from the effective date of this permit.

3. If the permittee fails to comply with any deadline contained in the foregoing schedules, the permittee shall, within fourteen (14) days following the missed deadline, submit a written notice of noncompliance to the Compliance Evaluation Section of the OWQ stating the cause of noncompliance, any remedial action taken or planned, and the probability of meeting the date fixed for compliance with final effluent limitations.

F. REOPENING CLAUSES

This permit may be modified, or alternately, revoked and reissued, after public notice and opportunity for hearing:

1. to comply with any applicable effluent limitation or standard issued or approved under 301(b)(2)(C),(D) and (E), 304 (b)(2), and 307(a)(2) of the Clean Water Act, if the effluent limitation or standard so issued or approved:

a. contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

b. controls any pollutant not limited in the permit.

2. to incorporate any of the reopening clause provisions cited at 327 IAC 5-2-16.

3. to incorporate increased monthly average and daily maximum effluent limitations for ammonia as N for Outfall 005 based on a 95th Percentile Probability Basis for the monthly average and a 99th Percentile Probability Basis for the daily maximum using effluent data after the refinery has been re-configured to process Canadian Extra Heavy Crude Oil. The permittee is not required to make a new demonstration, under 327 IAC 5-2-11.7, that the discharge is necessary and that it supports social or economic development in the area of the discharge. It is also not necessary to support the provisions in 327 IAC 5-2-10(11)(B)(i) for any proposed increase in the effluent limitations for ammonia that is attributable to the same action which resulted in the increased discharge limitations for ammonia contained in this permit. The permittee must demonstrate that any proposed increase in effluent limits for ammonia is based on new information that was not available at the time of this permits issuance. The increased discharge limits shall be limited to the minimum necessary and must comply with the more stringent of effluent limitation guidelines and water quality standards.

4. This permit may be modified, or, alternately, revoked and reissued, to comply with any applicable standards, regulations and requirements issued or approved under section 316(b) of the Clean Water Act, if the standards, regulations and requirements so issued or approved contains different conditions than those in this permit.

5. If a treatment technology for the removal of mercury from wastewater is identified and is determined by IDEM to be available and economically viable, then BP must install and fully operate that treatment technology as soon as possible. Within 6 months after IDEM's determination or the final disposition of any appeal of such determination, whichever is later, BP shall submit a schedule, subject to IDEM approval, for the installation and operation of the identified treatment technology that is as expeditious as possible. Any such determination shall be considered final agency action, which BP may appeal. Upon completion of 12 months of operation, IDEM should modify the permit in accordance with 327 IAC 5-3.5-8 to revise the effective effluent limits for mercury at Outfall 005.

G. CHRONIC BIOMONITORING PROGRAM REQUIREMENTS

The 1977 Clean Water Act explicitly states, in Section 101(3) that it is the national policy that the discharge of toxic amounts be prohibited. In support of this policy the U.S. EPA in 1995 amended 40 CFR 136.3 (Tables IA and II) by adding testing method for measuring acute and short-term chronic toxicity of whole effluents and receiving waters. To adequately assess the character of the effluent, and the effects of the effluent on aquatic life, the permittee shall conduct Whole Effluent Toxicity Testing. Part 1 of this section describes the testing procedures, Part 2 describes the Toxicity Reduction Evaluation which is only required if the effluent demonstrated toxicity, as described in paragraph 1.f.

1. Whole Effluent Toxicity Tests

The permittee shall conduct bioassay tests described below to monitor the toxicity of the discharge from Outfall 001 and Outfall 005. If toxicity is demonstrated as defined under paragraph f. below, the permittee is required to conduct a toxicity reduction evaluation (TRE).

a. Bioassay Test Procedures and Data Analysis

(1) All test organisms, test procedures and quality assurance criteria used shall be in accordance with the Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms; Fourth Edition Section 11, Fathead Minnow (Pimephales promelas) Larval Survival and Growth Test Method, (1000.0) EPA 821-R-02-013, October 2002, or most recent update.

(2) Any circumstances not covered by the above methods, or that require deviation from the specified methods shall first be approved by the IDEM's Environmental Toxicology and Chemistry Section.

(3) The determination of effluent toxicity shall be made in accordance with the Data Analysis general procedures for chronic toxicity endpoints as outlined in Sections 11 and 13 of the respective Test Method (1000.0 and 1002.0) of Short-term Methods of Estimating the Chronic Toxicity of Effluent and Receiving Water to Freshwater Organisms (EPA-821-R-02-013), Fourth Edition, October 2002, or most recent update.

b. Types of Bioassay Tests

The permittee shall conduct 7-day Fathead Minnow (Pimephales promelas) Larval Survival and Growth Test on samples of final effluent. All tests will be conducted on 24-hour composite samples of final effluent. All test solutions shall be renewed daily. On days three and five fresh 24-hour composite samples of the effluent collected on alternate days shall be used to renew the test solutions.

If, in any control, more than 20% of the test organisms die in 7days, that test shall be repeated. Such testing will determine whether the effluent affects the survival, reproduction, and/or growth of the test organisms. Results of all tests regardless of completion must be reported to IDEM.

c. Effluent Sample Collection and Chemical Analysis

(1) Samples taken for the purposes of Whole Effluent Toxicity Testing will be taken at a point that is representative of the discharge, but prior to discharge. The maximum holding time

for whole effluent is 36 hours for a 24 hour composite sample. Bioassay tests must be started within 36 hours after termination of the 24 hour composite sample collection. Bioassay of effluent sampling may be coordinated with other permit sampling requirements as appropriate to avoid duplication.

(2) Chemical analysis must accompany each effluent sample taken for bioassay test. The analysis detailed under Part I.A. should be conducted for the effluent sample. Chemical analysis must comply with approved EPA test methods.

d. Testing Frequency and Duration

The chronic toxicity test specified in paragraph b. above shall be conducted at least once every six months for the duration of the permit. If toxicity is demonstrated as defined under paragraph f., the permittee is required to conduct a toxicity reduction evaluation (TRE) as specified in Part 2 of this section.

e. Reporting

(1) Results shall be reported according to EPA 821-R-02-013, Section 10 (Report Preparation). Two copies of the completed report for each test shall be submitted to the Data Management Section of IDEM no later than sixty days after completion of the test.

(2) For quality control, the report shall include the results of appropriate standard reference toxic pollutant tests for chronic endpoints and historical reference toxic pollutant data with mean values and appropriate ranges for the respective test species Pimephales promelas. Biomonitoring reports must also include copies of Chain-of-Custody Records and Laboratory raw data sheets.

(3) Statistical procedures used to analyze and interpret toxicity data including critical values of significance used to evaluate each point of toxicity should be described and included as part of the biomonitoring report.

f. Demonstration of Toxicity

(1) During the period beginning on the effective date of this permit and lasting until the Alternate Mixing Zone is operational or three years after the effective date of this permit, whichever occurs first, the permittee shall monitor the effluent for chronic toxicity without the requirement to conduct a toxicity reduction evaluation described in Part 2 of this Section. If the alternate mixing zone is not approved, the permittee shall monitor the effluent for chronic toxicity with the requirement to conduct a toxicity reduction evaluation described in part 3 of this section.

(2) During the period beginning on the date that the Alternate Mixing Zone is operational and lasting until the expiration date, Chronic toxicity will be demonstrated if the Chronic Toxic Units are more than 38 TU_c for Pimephales promelas. If the chronic toxicity is found in any of the tests specified above, a confirmation toxicity test using the specified methodology and same test species shall be conducted within two weeks of the completion of the failed test to confirm results. If any two (2) consecutive tests, including any and all confirmation tests, indicate the presence of toxicity, the permittee must begin the implementation of a Toxicity Reduction Evaluation (TRE) as described below. The whole effluent toxicity tests required above may be suspended (upon approval from IDEM) while the TRE is being conducted.

(3) If, three years after the effective date of this permit, the Alternate Mixing Zone has not become operational, then from that date until the expiration date, Chronic toxicity will be demonstrated if the Chronic Toxic Units are more than 1 TU_c for Pimephales promelas. If the chronic toxicity is found in any of the tests specified above, a confirmation toxicity test using the specified methodology and same test species shall be conducted within two weeks of the completion of the failed test to confirm results. If any two (2) consecutive tests, including any and all confirmation tests, indicate the presence of toxicity, the permittee must begin the implementation of a Toxicity Reduction Evaluation (TRE) as described below. The whole effluent toxicity tests required above may be suspended (upon approval from IDEM) while the TRE is being conducted.

2. Toxicity Reduction Evaluation (TRE) Schedule of Compliance

The development and implementation of a TRE (including any post-TRE biomonitoring requirements) is only required if toxicity is demonstrated as defined by paragraph 1.f(2) or 1.f.(3) as applicable.

a. Development of TRE Plan

Within 90 days of determination of toxicity, the permittee shall submit plans for an effluent toxicity reduction evaluation (TRE) to the Data Management Section of IDEM. The TRE plan shall include appropriate measures to characterize the causative toxicants and the variability associated with these compounds. Guidance on conducting effluent toxicity reduction evaluations is available from EPA and from the EPA publications list below:

(1) Methods for Aquatic Toxicity Identification Evaluations:

Phase I Toxicity Characteristics Procedures, Second Edition (EPA/600/6-91/003, February 1991.

Phase II Toxicity Identification Procedures (EPA 600/3-88/035), February 1989.

Phase III Toxicity Confirmation Procedures (EPA 600/3-88/036), February 1989.

(2) Methods for Chronic Toxicity Identification
Phase I Characterization of Chronically Toxic Effluents
EPA/600/6-91/005, June 1991.

(3) Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations (EPA/600/2-88/070), March 1989.

(4) Toxicity Reduction Evaluation Protocol for Municipal Wastewater Treatments Plants (EPA/600/2-88/062) April 1989.

b. Conduct the Plan

Within 30 days after the submission of the TRE plan to IDEM, the permittee must initiate an effluent TRE consistent with the TRE plan. Progress reports shall be submitted every 90 days to the Data Management and Compliance Evaluation Sections of the Office of Water Quality (OWQ) beginning 90 days after initiation of the TRE study.

c. Reporting

Within 90 days of the TRE study completion, the permittee shall submit to the Data Management and Compliance Evaluation Section of the Office of Water Quality (OWQ) the final study results and a schedule for reducing the toxicity to acceptable levels through control of the toxicant source or treatment of whole effluent.

d. Compliance Date

The permittee shall complete items a, b, and c from Part 2 of this section above and reduce the toxicity to acceptable levels as soon as possible, but no later than three years after the date of determination of toxicity.

e. Post-TRE Biomonitoring Requirements (Only Required After Completion of a TRE)

After the TRE, the permittee shall conduct monthly toxicity tests with the species designated in paragraph 1.b. for a period of three months. Should three consecutive monthly tests demonstrate no toxicity, the permittee may conduct chronic tests every six months for the duration of the permit.

If toxicity is demonstrated, as defined in paragraph 1.f.(2) or 1.f.(3) above, after the initial three month period, testing must revert to a TRE as in Part 2 of this section (TRE). These tests shall be conducted in

accordance with the procedures under the Whole Effluent Toxicity Testing Section above.

H. DIFFUSER MAINTENANCE AND MONITORING REQUIREMENTS

1. Maintenance and Operation Plan

   a. BP Products North America shall submit the operation and maintenance plan for the diffuser in Lake Michigan to IDEM's Office of Water Management, Industrial NPDES Permits Section before the diffuser become operational.

2. Biological Survey

   a. BP Products North America shall conduct an annual survey of the aquatic life found within a 200 feet radius of the diffuser beginning when the diffuser becomes operational. The results of this survey shall be submitted to IDEM's Office of Water Management, Industrial NPDES Permits Section.

PART II

STANDARD CONDITIONS FOR NPDES PERMITS

A. GENERAL CONDITIONS

1. Duty to Comply

The permittee shall comply with all conditions of this permit in accordance with 327 IAC 5-2-8(1). Any permit noncompliance constitutes a violation of the Clean Water Act, and the Environmental Management Act, and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

2. Penalties for Violations of Permit Conditions

Pursuant to IC 13-30-4, a person who violates any provision of this permit, the water pollution control laws; environmental management laws; or a rule or standard adopted by the Water Pollution Control Board is liable for a civil penalty not to exceed twenty-five thousand dollars ($25,000) per day of any violation. Pursuant to IC 13-30-5, a person who obstructs, delays, resists, prevents, or interferes with (1) the department; or (2) the department's personnel or designated agent in the performance of an inspection or investigation commits a class C infraction.

Pursuant to IC 13-30-6, a person who intentionally, knowingly, or recklessly violates any provision of this permit, the water pollution control laws or a rule or standard adopted by the Water Pollution Control Board commits a class D felony punishable by the term of imprisonment established under IC 35-50-2-7(a) (up to one year), and/or by fine of not less than five thousand dollars ($5,000) and not more than fifty thousand dollars ($50,000) per day of violation. A person convicted for a violation committed after a first conviction of such person under this provision is subject to a fine of not more than one hundred thousand ($100,000) per day of violation, or by imprisonment for not more than two (2) years, or both.

3. Duty to Mitigate

Pursuant to 327 IAC 5-2-8(3), the permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.

4. Permit Modification, Revocation, and Reissuance, and Termination

In accordance with 327 IAC 5-2-8(4)and 327 IAC 5-2-16(b), this permit may be modified, revoked and reissued, or terminated for cause, including, but not limited to, the following:

a. Violation of any term or condition of this permit;

b. Failure of the permittee to disclose fully all relevant facts or misrepresentation of any relevant facts by the permittee in the application or during the permit issuance process; or

c. A change in any condition that requires either a temporary or a permanent reduction or elimination of any discharge controlled by this permit.

The filing of a request by the permittee for a permit modification, revocation, and reissuance, or termination, or any information specified in Part II.A.5 of this permit does not stay or suspend any permit term or condition.

The permittee shall submit any information that the permittee knows or has reason to believe would constitute cause for modification or revocation and reissuance of the permit at the earliest time such information becomes available, such as plans for physical alterations or additions to the permitted facility that:

(1) could significantly change the nature of, or increase the quantity of, pollutants discharged; or

(2) the commissioner may request to evaluate whether such cause exists.

5. Duty to Provide Information Requested by the Commissioner

Pursuant to 40 CFR 122.41(h), the permittee shall furnish to the Commissioner, within reasonable time, any information which the Commissioner may request to determine compliance with this permit. Pursuant to 327 IAC 5-1-3, the permittee shall furnish to the Commissioner any reports or data necessary to carry out the provisions of 327 IAC 5 in such a manner as the Commissioner may reasonably prescribe.

6. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a renewal of this permit in accordance with 327 IAC 5-2-8(2). It is the permittee's responsibility to obtain and submit the application. Pursuant to 327 IAC 5-3-2(a)(2), the application must be submitted at least 180 days in advance of the expiration date of this permit. The Commissioner may grant permission to submit an application less than 180 days in advance of the expiration date of this permit but no later than the permit expiration date.

7. Permit Transfer

In accordance with 327 IAC 5-2-6(c), this permit may be transferred to another person by the permit, without modification or revocation and reissuance being required under 327 IAC 5-2-16(c)(1) or 16(e)(4), if the following occurs:

a. The current permittee notified the commissioner at least thirty (30) days in advanced of the proposed transfer date.

b. A written agreement containing a specific date for transfer of permit responsibility and coverage between the current permittee and the transferee (including acknowledgement that the existing permittee is liable for violations up to the date, and that the transferee is liable for violations from that date on) is submitted to the commissioner.

c. The transferee certifies in writing to the commissioner their intent to operate the facility without making such material and substantial alterations or additions to the facility as would significantly change the nature or quantities of pollutants discharged and thus constitute cause for permit modification under 327 IAC 5-2-16(d). However, the commissioner may allow a temporary transfer of the permit without the permit modification for good cause, e.g., to enable the transferee to purge and empty the facility's treatment system prior to making alterations, despite the transferee's intent to make such material and substantial alterations or additions to the facility.

d. The commissioner, within thirty (30) days, does not notify the current permittee and the transferee of the intent to modify, revoke and reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

The Commissioner may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

8. Toxic Pollutants

If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Clean Water Act for a toxic pollutant injurious to human health and that standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition in accordance with 327 IAC 5-2-8(5). Effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants injurious to human health are effective and must be compiled with, if applicable to the permittee, within the time provided in the implementing regulations, even absent permit modification.

9. Operator Certification

The permittee shall have the wastewater treatment facilities under supervision of an operator certified by the Commissioner as required by IC 13-18-11 and 327 IAC 5-22.

10. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under Section 311 of the Clean Water Act.

11. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal actions or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any application state law or regulation under authority preserved by Section 510 of the Clean Water Act.

12. Property Rights

Pursuant to 327 IAC 5-2-8(6) and 327 IAC 5-2-5(b), the issuance of this permit does not convey any property right of any sort or any exclusive privileges, nor does it authorize any injury to persons or private property or an invasion of rights, any infringement of federal, state, or local laws or regulations. The issuance of the permit also does not preempt any duty to obtain any other state, or local assent required by law for the discharge or for the construction or operation of the facility from which a discharge is made.

13. Severability

In accordance with 327 IAC 1-1-3, the provisions of this permit are severable and, if any provision of this permit or the application of any provision of this permit to any person or circumstances is held invalid, the application or such provision to other circumstances and the remainder of this permit shall not be affected thereby if such provisions can be given effect without the invalid provision or application.

14. Inspection and Entry

Pursuant to 327 IAC 5-2-8(7), the permittee shall allow the Commissioner, or an authorized representative (including an authorized contractor acting as a representative of the commissioner), upon the presentation of credentials and other documents as may be required by law, to:

a. Enter upon the permittee's premises where a point source is located, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect, at reasonable times:

(1) any monitoring equipment or method;

(2) any collection, treatment, pollution management, or discharge facilities; or

(3) practices required or otherwise regulated under the permit.

d. Sample or monitor at reasonable time, any discharge of pollutants or internal wastestream (where necessary to ascertain the nature of a discharge of pollutants) for the purpose of evaluating compliance with this permit or as otherwise authorized.

15. Construction Permit

In accordance with IC 13-14-8-11.6, a discharger is not required to obtain a state permit for the modification or construction of a water pollution treatment or control facility if the discharger has an effective NPDES permit.

If the discharger modifies their existing water pollution treatment or control facility or constructs a new water pollution treatment or control facility for the treatment or control of any new influent pollutant or increased levels of any existing pollutant, then, within thirty (30) days after commencement of operation, the discharger shall file with the Department of Environment Management a notice of installation for the additional pollutant control equipment and a design summary of any modifications.

The notice and design summary shall be sent to the Office of Water Quality - Mail Code 65-42, Industrial NPDES Permits Section, 100 North Senate Avenue, Indianapolis, IN 46204-2251.

16. New or Increased Discharge of Pollutants

This permit prohibits the permittee from undertaking any action that would result in a new or increased discharge of a bioaccumulative chemical of concern (BCC) or a new or increased permit limit for a pollutant parameter that is not a BCC into Lake George Channel of the Indiana Harbor Ship Canal unless one of the following is completed prior to the commencement of the action:

a. Information is submitted to the Commissioner demonstrating that the proposed new or increased discharge will not cause a significant lowering of water quality as defined under 327 IAC 5-2-11.3(b)(1). Upon review of this information, the Commissioner may request additional information or may determine that the proposed increase is a significant lowering of water quality and require the submittal of an antidegradation demonstration.

b. An antidegradation demonstration is submitted to and approved by the Commissioner in accordance with 327 IAC 5-2-11.3(b)(3) and (4).

17. New or Increased Discharge of Pollutants into Lake Michigan

This permit prohibits the permittee from undertaking any deliberate action that would result in degradation of the water quality in Lake Michigan. The permittee shall notify the Commissioner if there is any increase in the loading of a bioaccumulative chemical of concern (BCC), above normal variability,

attributable to a deliberate action unless the increased discharge of the BBC qualifies under one of the exceptions under 327 IAC 5-2-11.7(b) or (c).

B. MANAGEMENT REQUIREMENTS

1. Proper Operation and Maintenance

The permittee shall at all times maintain in good working order and efficiently operate all facilities and systems (and related appurtenances) for the collection and treatment which are installed or used by the permittee and which are necessary for achieving compliance with the terms and conditions of this permit in accordance with 327 IAC 5-2-8(8).

2. Bypass of Treatment Facilities

Pursuant to 327 IAC 5-2-8(11):

a. Terms as defined in 327 IAC 5-2-8(11)(A):

(1) "Bypass" means the intentional diversion of a waste stream from any portion of a treatment facility.

(2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. The permittee may allow a bypass to occur that does not exceed any effluent limitations contained in this permit, but only if it is essential maintenance to assure efficient operation. The permittee is not required to notify the Commissioner about bypasses that meet this definition. This provision will be strictly construed. These bypasses are not subject to the provisions of Part II.B.2.d and e of this permit.

c. Bypasses, as defined in (a) above, are prohibited, and the Commissioner may take enforcement action against a permittee for bypass, unless the following occur:

(1) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage, as defined above;

(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and

(3) The permittee submitted notices as required under Part II.B.2.e; or

(4) The condition under Part II.B.2.b above is met.

d. Bypasses that result in death or acute injury or illness to animals or humans must be reported in accordance with the "Spill Response and Reporting Requirements" in 327 IAC 2-6.1.

e. The permittee must provide the Commissioner with the following notice:

(1) If the permittee knows or should have known in advance of the need for a bypass (anticipated bypass), it shall submit prior written notice. If possible, such notice shall be provided at least ten (10) days before the date of the bypass for approval by the Commissioner.

(2) The permittee shall orally report an unanticipated bypass that exceeds any limitations in the permit within 24 hours of becoming aware of the bypass noncompliance. The permittee must also provide a written report within five (5) days of the time the permittee becomes aware of the bypass noncompliance. The written report must contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; if the cause of noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate and prevent recurrence of the bypass event.

f. The Commissioner may approve an anticipated bypass, after considering its adverse effects, if the Commissioner determines that it will meet the conditions listed above in Part II.B.2.c. The Commissioner may impose any conditions determined to be necessary to minimize any adverse effects.

3. Upset Conditions

Pursuant to 327 IAC 5-2-8(12):

a. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. An upset shall constitute an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Paragraph c of this section, are met.

c. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, that:

(1) An upset occurred and the permittee has identified the specific cause(s) of the upset, if possible;

(2) The permitted facility was at the time being operated in compliance with proper operation and maintenance procedures; and

(3) The permittee complied with any remedial measures required under Part II.A.3;

(4) The permittee submitted notice of the upset as required in the "Twenty-Four Hour Reporting Requirements," Part II.C.3, or 327 IAC 2-6.1, whichever is applicable.

4. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed from or resulting from treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the State and to be in compliance with all Indiana statutes and regulations relative to liquid and/or solid waste disposal.

C. REPORTING REQUIREMENTS

1. Planned Changes in Facility or Discharge

Pursuant to 327 IAC 5-2-8(10)(F), the permittee shall give notice to the Commissioner as soon as possible of any planned alterations or additions to the facility. In this context, permit facility refers to a point source discharge, not a wastewater treatment facility. Notice is required only when either of the following applies:

a. The alteration or addition may meet one of the criteria for determining whether the facility is a new source as outlined in 327 IAC 5-1.5.

b. The alteration or addition could significantly change the nature of, or increase the quantity of, pollutants discharge. This notification applies to pollutants that are subject either to effluent limitations in Part I.A. or to notification requirements in Part II.C.9. of this permit.

Following such notice, the permit may be modified to revise existing pollutant limitations and/or to specify and limit any pollutants not previously limited.

2. Monitoring Reports

Pursuant to 327 IAC 5-2-8(9)and 327 IAC 5-2-13 through 15, monitoring results shall be reported at the intervals and in the form specified in "Discharge Monitoring Reports", Part I.C.2.

3. Twenty-Four Hour Reporting Requirements

Pursuant to 327 IAC 5-2-8(10)(C), the permittee shall orally report to the Commissioner information on the following types of noncompliance within 24 hours from the time permittee becomes aware of such noncompliance. If the noncompliance meets the requirements of item b (Part II.C.3.b) or 327 IAC 2-6.1, then the report shall be made within those prescribed time frames.

a. Any unanticipated bypass which exceeds any effluent limitation in the permit;

b. Any noncompliance which may pose a significant danger to human health or the environment. Reports under this item shall be made as soon as the permittee becomes aware of the non-complying circumstances;

c. Any upset that causes an exceedance of any effluent limitation in the permit;

d. Violation of a maximum daily discharge limitation for any of the following toxic pollutants: Ammonia as N, Sulfide, Total Chromium and Hexavalent Chromium.

The permittee can make the oral reports by calling (317)232-8670 during regular business hours or by calling (317) 233-7745 ((888)233-7745 toll free in Indiana) during non-business hours. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce and eliminate the noncompliance and prevent its recurrence. The Commissioner may waive the written report on a case-by-case basis if the oral report has been received within 24 hours. Alternatively the permittee may submit a "Bypass Fax Report" or a "Noncompliance Notification Report", whichever is appropriate, to IDEM at (317) 232-8637. If a complete fax submittal is sent within 24 hours of the time that the permittee became aware of the occurrence, then the fax report will satisfy both the oral and written reporting requirements.

4. Other Noncompliance

Pursuant to 327 IAC 5-2-8(10)(D), the permittee shall report any instance of noncompliance not reported under the "Twenty-Four Hour Reporting Requirements" in Part II.C.3, or any compliance schedules at the time the pertinent Discharge Monitoring Report is submitted. The report shall contain the information specified in the compliance schedule.

5. Other Information

Pursuant to 327 IAC 5-2-8(10)(E), where the permittee becomes aware of a failure to submit any relevant facts or submitted incorrect information in a permit application or in any report, the permittee shall promptly submit such facts or corrected information to the Commissioner.

6. Signatory Requirements

Pursuant to 327 IAC 5-2-22 and 327 IAC 5-2-8(14):

a. All reports required by the permit and other information requested by the Commissioner shall be signed and certified by a person described below or by a duly authorized representative of that person:

(1) For a corporation: by a responsible corporate officer defined as a president, secretary, treasurer, any vice-president of the corporation in charge of a principal business function, or any other person who performs similar policymaking or decision making functions for the corporation or the manager of one or more manufacturing, production or operating facilities employing more than two hundred fifty (250) persons or having the gross annual sales or expenditures exceeding twenty-five million dollars ($25,000,000) (in second quarter 1980 dollars), if authority to sign documents has been assigned to the manager in accordance with corporate procedures.

(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(3) For a Federal, State, or local government body or any agency or political subdivision thereof: by either a principal executive officer or ranking elected official.

b. A person is duly authorized representative only if:

(1) The authorization is made in writing by a person described above.

(2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or a position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

(3) The authorization is submitted to the Commissioner.

c. Certification. Any person signing a document identified under Part II.C.7., shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering in the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

7. Availability of Reports

Except for data determined to be confidential under 327 IAC 12.1, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Indiana Department of Environmental Management and the Regional Administrator. As required by the Clean Water Act, permit applications, permits, and effluent data shall not be considered confidential.

8. Penalties for Falsification of Reports

IC 13-30 and 327 IAC 5-2-8(14) provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance, shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 180 days per violation, or by both.

9. Changes in Discharge of Toxic Substances

Pursuant to 327 IAC 5-2-9, the permittee shall notify the Commissioner as soon as it knows or has reason to believe:

a. That any activity has occurred or will occur which would result in the discharge of any pollutant identified as toxic, pursuant to Section 307(a) of the Clean Water Act which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels."

(1) One hundred micrograms per liter (100µg/l);

(2) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500µg/l) for 2,4-dinitrophenol and 2-methyl-4,6-dinitophenol; and one milligram per liter (1mg/l) for antimony;

(3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).

b. That it has begun or expects to begin to use or manufacture, as an intermediate or final product or byproduct, any toxic pollutant which was not reported in the permit application under 40 CFR 122.21(g)(9).

PART III
Additional Requirements

A. Thermal Effluent Requirements

Based on a favorable joint 316(a) thermal demonstration study submitted by Union Carbide and the permittee, thermal effluent limitations were suspended for this discharge in June of 1975. This variance renewal shall be valid as long as there is no significant increase in the thermal discharge or heat rejection rate from this facility.

Section 316(a) of the Federal Clean Water Act provides variances from thermal water quality criteria. Alternate thermal permit conditions have been included in the permit renewal based on the past demonstration. In accordance with 327 IAC 5-7 and Subpart H of 40 CFR 125 the IDEM is requiring the permittee to submit a new 316(a) variance request with the renewal application for the next NPDES permit. To assure the protection and propagation of a balanced, indigenous community of shellfish, fish and wildlife in and on the body of water, the permittee must follow the schedule listed below:

1. Within six months of notification by IDEM, the permittee must complete its draft 316(a) study plan and submit it to the IDEM Office of Water Quality for review and approval. IDEM will provide a form and directions for completion of the required study plan at the time of notification.

2. The IDEM must approve the draft 316(a) study plan before the permittee conducts its 316(a) study. IDEM's action to approve or disapprove the study plan is subject to appeal which must be filed under procedures outlined in IC 4-21.5.

3. The permittee must submit its 316(a) demonstration/variance application in conjunction with their NPDES permit renewal application one hundred eighty (180) days prior to date the permit expires. If the draft 316(a) study plan has not been approved by IDEM within thirty (30) months of the effective date of this permit, the permittee shall submit any 316(a) demonstration/variance application twenty-four (24) months subsequent to IDEM approval of the study plan. The permittee may base its 316(a) demonstration upon the absence of prior appreciable harm in lieu of predictive studies in accordance with 327 IAC 5-7-4(c)(1).

B. Intake Structures

The 316(b) study for this facility was approved by the U.S. EPA in June of 1975. This approval is considered valid and effective and shall remain in effect until significant changes are made to the intake structure or until new federal regulations which regulate the intake structure at this facility require a new evaluation of this approval.

C. Intake Water Interruption

In the event that the intake water supply is interrupted and to prevent equipment damage or plant shutdown, firewater or recycle (treated process) water may be substituted for non-contact cooling purposes until the cause of the interruption can be expeditiously corrected. The permittee shall notify the IDEM, Office of Water Quality, Compliance Evaluation Section upon such occurrence and its expected duration.

Part IV
Streamlined Mercury Variance

A. Term of SMV

The SMV and the interim discharge limitations in Part I.A.1, will remain in effect until the NPDES permit expires under IC 13-14-8-9. Pursuant to IC 13-14-8-9(d), when the NPDES permit is extended under IC 13-15-3-6 (administratively extended), the SMV will remain in effect as long as the NPDES permit requirements affected by the SMV are in effect.

B. Annual Reports

The permittee shall submit an annual report to IDEM that describes the permittee's progress toward fulfilling each PMPP requirement, the results of all mercury monitoring within the previous year, and the steps taken to implement the planned activities outlined under the PMPP. The annual report must also include documentation of chemical and equipment replacements, staff education programs, and other initiatives regarding mercury awareness or reductions. The complete inventory and complete evaluation required by the PMPP may be submitted as part of the annual report. Submittal of the annual report will be due within twenty-one (21) days following the anniversary of the effective date of the modified NPDES permit as identified on Page 1. Annual Reports should be submitted to the Office of Water Quality, Mail Code 65-42, Industrial Permits Section, 100 North Senate Avenue, Indianapolis, Indiana 46204 2251.

C. SMV Renewal

As authorized under 327 IAC 5-3.5-7(a)(1), the permittee may apply for the renewal of an SMV at any time within 180 days prior to the expiration of the NPDES permit. In accordance with 327 IAC 5-3.5-7(c), an application for renewal of the SMV must contain the following:

- All information required for an initial SMV application under 327 IAC 5-3.5-4, including revisions to the PMPP, if applicable.
- A report on implementation of each provision of the PMPP.
- An analysis of the mercury concentrations determined through sampling at the facility's locations that have mercury monitoring requirements in the NPDES permit for the two (2) year period prior to the SMV renewal application.
- A proposed alternative mercury discharge limit, if appropriate, to be evaluated by the department according to 327 IAC 5-3.5-8(b) based on the most recent two (2) years of representative sampling information from the facility.

Renewal of the SMV is subject to a demonstration showing that PMPP implementation has achieved progress toward the goal of reducing mercury from the discharge.

D. Pollutant Minimization Program Plan (PMPP) and Interim Effluent Limit

The PMPP is a requirement of the SMV application and is defined in 327 IAC 5-3.5-3(4) as the plan for development and implementation of Pollutant Minimization Program (PMP). The PMPP is defined in 327 IAC 5-3.5-3(3) as the program developed by an

SMV applicant to identify and minimize the discharge of mercury into the environment. PMPP requirements (including the enforceable parts of the PMPP) are outlined in 327 IAC 5-3.5-9. In accordance with 327 IAC 5-3.5-6, the permittee's PMPP is appended with this Attachment.

The following PMPP developed by BP Products North America, LLC in accordance with 327 IAC 5-3.5-9 of the Streamlined Mercury Variance Rule is hereby incorporated into this permit as follows:

1. Within 6 months from the effective date of the permit modification to incorporate the SMV requirements, BP will conduct a review of the reports from the Purdue/Argonne pilot study conducted at the Whiting Refinery and submit a report to IDEM summarizing recommendations for further evaluation steps to reduce the discharge of Mercury from the Whiting Refinery.

If a particular mercury removal technology is recommended for an additional pilot demonstration after completion of the Purdue/Argonne pilot studies conducted at the Whiting Refinery, BP Whiting would commence a pilot demonstration unit to further review the recommended technology(ies) according to the following schedule:

a. Begin operation of such pilot demonstration unit of similar size as the Purdue/Argonne pilot within eighteen (18) months of the NPDES permit modification incorporating the SMV.
b. Complete the pilot demonstration and submit a final report to IDEM within thirty-six (36) months of the NPDES permit modification incorporating the SMV.

The pilot demonstration evaluation will include at least the following: performance under varying weather and process conditions, evaluation of options for waste streams, and reliability, operability, and feasibility. The report to IDEM shall summarize the results of the pilot demonstration, including reliability and feasibility of the piloted mercury removal technology, and recommendations for the next phase of review.

2. Within 18 months from the start up of the Brine Treatment Unit and Final Filters, BP will complete an evaluation of the mercury reduction of the new Brine Treatment unit and final filters being installed at the Whiting Refinery and submit a final report to IDEM. The evaluation will include at least the following: performance under varying weather and process conditions, evaluation of option for waste streams, and reliability, operability and feasibility. The report to IDEM shall summarize the results of the evaluation, including reliability and feasibility of the mercury removal, and recommendation for the next phase of the review

3. Within 6 months from the effective date of the permit modification to incorporate the SMV requirements, BP will review the existing purchasing policies and practices to ensure the disclosure of mercury content as part of the purchasing criteria. BP will complete and document the review of the existing procedures and develop any new language required to incorporate the objective of restricting the purchase and use of mercury containing chemicals and equipment where there is a risk of contributing mercury to the wastewater discharge.

4. Within 12 months from the effective date of the permit modification to incorporate the SMV requirements, BP will educate all BP Whiting Refinery personnel about the mercury related purchasing policies, recycling practices, proper handling and disposal techniques, spill containment procedures, and other pollution prevention measures designed to reduce the potential for mercury to enter the wastewater treatment plant. BP will develop a computer-based training module or Virtual Training Administrator (VTA) or other training methods as appropriate for the training of personnel.

5. Within 12 months from the effective date of the permit modification to incorporate the SMV requirements, BP will review the current recycling program for opportunities and improvements for the mercury containing equipment and update the practices and procedures to incorporate these opportunities as needed and as feasible.

6. Within 18 months from the effective date of the permit modification to incorporate the SMV requirements, BP will complete the review and identification of mercury containing chemicals or additives that are used in the operations and processes which have the potential risk of entering the process wastewater sewer system.

7. Within 18 months from the effective date of the permit modification to incorporate the SMV requirements, BP will compile a complete inventory of all equipment containing mercury that have the potential risk of charging mercury to the process wastewater sewer system, including the estimated mercury content from the vendor and supplier information as well as location of such equipment.

8. Within 24 months from the effective date of the permit modification to incorporate the SMV requirements, BP will perform an assessment of the mercury content of the sediment in the main process sewer legs that are part of the current sewer cleaning program.

9. Within 24 months from the effective date of the permit modification to incorporate the SMV requirements, BP will complete an assessment of identified process unit wastewater discharges from sources within the refinery that may contain mercury at detection levels utilizing process knowledge, previous analysis or with new analysis if warranted.

10. Within 24 months from the effective date of the permit modification to incorporate the SMV requirements, BP will develop a prioritized schedule for the cleaning of the sewers incorporating any significant impacts found from the results of the sewer system characterization study. The sediment and mercury removal progress will be reported in the annual reports.

11. Within 36 months from the effective date of the permit modification to incorporate the SMV requirements, BP will complete the detailed inventory list of process chemicals or additives containing mercury, equipment containing mercury and process discharges that contain mercury

12. Within 36 months from the effective date of the permit modification to incorporate the SMV requirements, BP will develop a procedure utilizing a ranking method to identify the high-risk equipment and process chemicals for mercury exposure and alternatives that are feasible for their replacement. Then mercury containing chemicals and equipment will be replaced or substituted with chemicals or equipment containing less mercury or no mercury.